FROM EDITOR-IN-CHEIF

Glad to release the latest issue of our in-house newsletter! In this current release we have strived to encompass all the exciting activities and research aspirations as comprehensively as possible. This issue is not only a reflection of what the faculty and the students at ISNC are up to in the core research endeavors but also showcases successful appearance of our members at various conferences, thus extending their horizon and setting their eyes at higher learning!!!

Forthcoming 2nd Scientific conference is being announced, herewith and a creative representation of this idea is presented in a beautiful poster for your notice.

Our committed faculty and enthusiastic student community keep the good work going at a respectable pace and the trend is a definite positive for the future as well. I extend an invitation on behalf of the Editorial Board for those faculty members who may be interested to join us on a rotational basis to enrich the experience of this Newsletter even more absorbing.

With warm regards and greetings………

Dr. Shabbir Ahmed Sayeed

MESSAGE FROM DIRECTOR, ISNC-RC

Continued progress of research and scholarly activity of ISNC is at the core of research center's strategic actions. Although institutional excellence in faculty and student research is at the core of ISNC-RC’s strategies, the year 2016-17 was marked for implementation of a number of research center’s strategic actions proposed; “...developing and integrating community based research projects/activities into community services provided by staff and students” and “...develop interdisciplinary community services based research projects to create synergies between disciplines and programs” the current issue of research newsletter features the same. Additionally we are working on local and national for research collaborations.

The research initiatives of our staff and the involvement of student in these initiatives has benefited our student fraternity in the securing conference poster and oral presentations. These initiatives have led to research value addition to their CVs, thereby reaping the benefits of additional scores in the post graduate study applications within and outside the Kingdom.

Dr. Irfan Adil Majid Director, ISNC-RC.
ISNC-RC

Research at ISNC is making steady progress as evidenced by the number of new research project applications received by the Office of Research Center (ORC). The year 2016-17 began with a focused implementation of ISNC-RC’s proposed actions in its strategic plan (V3); “…interdisciplinary and community based research”. ISNC-RC worked through its ancillaries, the Program Research Teams (PRT) of medicine, clinical pharmacy, dentistry and nursing programs to implement its action plans. The first half of the academic year ending December 2016 saw an upsurge in the number of new research project applications being submitted to the ORC for ethical committee approval and due registration with the ORC.

It is noteworthy, a majority of research proposals received by ORC are interdisciplinary and community based research projects (also refer to the feature on community based research in this issue). Also, currently the ORC is considering application from researchers external to ISNC to conduct collaborative research with our faculty members.

ISNC-RC is committed to continue its contribution to research teaching to the students and extend its support to the faculty members at the program and institution. Whilst ISNC-RC continues to dole-out these programs at the individual program level through its respective PRTs (ancillary), the commitment was scaled beyond the program to the institution level. ISNC-RC has partnered with the three other units of ISNC (LTAU, Medical Education Unit and the Quality Assurance Center) to conduct Faculty Development Programs (FDP) to the staff members at the institution (refer table number 2). Two of the FDP topics, “Research process at ISNC” and “Ethical issues in the institutional research” were carefully chosen to give the staff members a comprehensive insight of the revised research guidelines of ISNC.

ISNC-RC has completed all steps (writing the learning outcomes, identifying the learning resources, three internal and one external review) in developing the “Extra-curricular course of research methodology” for the benefit of the undergraduate and graduate students of ISNC. The students stand to benefit from this course; as we believe this course will supplement and build upon the research leaning the students have undertaken in the undergraduate courses. The course is slated to be rolled-out in Feb-March of 2017.

Come April 2017 ISNC-RC has plans to make the 2nd Ibn Sina National College-Annual Scientific Conference a bigger and a better event than its predecessor (refer to 2nd Ibn Sina National College-Annual Scientific Conference for more details).

<table>
<thead>
<tr>
<th>No.</th>
<th>Name of Program</th>
<th>Research Project Applications</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Medicine</td>
<td>11</td>
</tr>
<tr>
<td>2</td>
<td>Clinical Pharmacy</td>
<td>14</td>
</tr>
<tr>
<td>3</td>
<td>Dentistry</td>
<td>11</td>
</tr>
</tbody>
</table>

Table 1: Research project proposals registered until end of October 2016

<table>
<thead>
<tr>
<th>No.</th>
<th>Name of the Faculty Development Program</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>Research process at ISNC</td>
</tr>
<tr>
<td>2</td>
<td>Ethical issues in institutional research</td>
</tr>
<tr>
<td>3</td>
<td>Biostatistics in health sciences research</td>
</tr>
<tr>
<td>4</td>
<td>Citation and use of referencing software</td>
</tr>
<tr>
<td>5</td>
<td>How to avoid plagiarism</td>
</tr>
<tr>
<td>6</td>
<td>Writing research grant proposals</td>
</tr>
</tbody>
</table>

Table 2: Proposed Faculty Development Program

Information Researchers:

Researchers undertaking or planning to conduct Clinical trials at ISNC should register their study with the Saudi Clinical Trials Registry (SCTR)

What is SCTR??? The Saudi Clinical Trials Registry (SCTR) is the entity that houses a formal record for all Clinical Trails data in Saudi Arabia.

What does it do??? It is responsible for ensuring the completeness and accuracy of the information contained in the register, and that the formal record of an internationally agreed minimum amount of information about a clinical trial is published on a publicly-accessible website.

How to register??? Click here to register.
"To make a significant contribution to advances in Saudi Arabian healthcare, through the provision of outstanding education, research and medical services within a stimulating learning environment."1 Through its mission ISNC is committed to serve the community through outstanding medical services, therefore encourages both the staff and students to engage in community service projects. “ISNC is striving to build a strong relationship with the community that serves different groups of people, aiming to provide an opportunity to its students to experience teamwork in order to feel committed to their community”2 further ISNC has taken due care to put in place administrative controls and measures to achieve the ambition of community service. A notable indication of this commitment is, the integration of community services and research in the strategic plan Ibn Sina National College – Research Center (ISNC-RC). “...developing and integrating community based research projects/activities into community services provided by staff and students”, and “...develop interdisciplinary community services based research projects to create synergies between disciplines and programs”.3

ISNC-RC believes in harnessing its research for the benefit of the community, the involvement in “community-higher education collaboration” was reported in the last issue of newsletter4. Engaging in community service in higher education promotes the principle of “Service learning”.

“Service learning” is a teaching and learning strategy that integrates community service with academic instruction and structured reflection in such a way that students gain further understanding of course content, meet community needs, develop career-related skills, and become responsible citizens.

The Feature
“Community Based Research” [CBR]

Additionally service learning provides an avenue for undergraduate research.5 in consultation with community service advisory committee and collaborations with a numbers of course providers within the institution ISNC-RC has initiated research in the following categories; (1) Problem-based service learning, (2) Community-based research, and (3) Participatory action research to engage undergraduate students in research through service learning.

Team of staff and Interns of Dentistry Program integrating community service and carrying out community service based research.

Beginning of academic 2016-17 coincided the Hajj pilgrimage; ISNC’s staff and students have a long history of serving the Hajj pilgrims since the inception of ISNC. The first community based research project was undertaken by the department of Internal Medicine under the supervision of Dr. Yasar Bakr, entitled “Foot Injuries and ulcers Among Hajj Pilgrims; a cross sectional study”, since the pilgrims attending Hajj are at risk of suffering from trauma and foot injury as they are required to make circuits barefooted on scorching marbles around the Holy Kabaa, and brisk walking between two hillocks.

On invitation of Dawaa’ center situated in the industrial city of Jeddah, second community based research project entitled “Oral health status and treatment needs among factory

employees” was undertaken by the interns of Dentistry Program under the aegis of the department of Oral and Maxillofacial Rehabilitation.

In pursuit to execute its strategic action, the ORC has processed and registered a number of community based research projects in the first half of the academic year 2016-17 to be undertaken by staff and students of ISNC. Notable examples being, “The relationship between obesity and dental trauma in 12 year-old Saudi Arabian children-A cross sectional study” by Dr. Fazeena Ali, a staff member of Dental Public Health. “A cross sectional questionnaire based study on the Knowledge of Colorectal Cancer awareness and screening among Saudi Population of above 40 years of age in Jeddah, Makkah Province” by Dr. Suban Mohammed Gouse etc.

The ISNC-RC’s efforts were timely supported by researchers external to ISNC seeking support of ISNC-RC to carrying-out their research work within our institution. Both the research applicants are currently working on projects on their research projects in ISNC. Both these research projects fall under the domain of community based research.

“…developing and integrating community based research projects/activities into community services provided by staff and students”.

Come 8th January 2017 two more such research project are slated to be undertaken by the elective 1 rotation students of medicine program, “Relation between Caffeine consumption and Developing Diabetes Mellitus and Hypertension and Relation between Sleep Disorders and Developing Diabetes Mellitus and Hypertension: A Community-Based Study in the City of Jeddah, KSA”.

Group of 4th year Medicine Program Students engaged in service learning (community based research) at Red Sea Mall.

“…develop interdisciplinary community services based research projects to create synergies between disciplines and programs”.

Reported By: Dr. Irfan Adil Majid, Director, ISNC-RC and PRT Head Dentistry Program.
The 2nd Ibn Sina National College-Annual Scientific Conference.

Following the successful hosting of 1st IS-ASC, come April 2017 ISNC-RC plans to expand the horizons of the 2nd ISNC-ASC. Extensive planning is on, to invite the participation of both public and private health science universities and medical schools of the Makkah region. The key features to look for in the upcoming conference:

1. Conference theme in the research thrust areas defined by ISNC-RC.
2. Two days event to accommodate the increased participation demand of both faculty members and student alike.
3. Conference to be accredited by the Saudi Council for Health Sciences.
4. Keynote speakers in the research thrust areas of ISNC-RC.
5. Guest speakers from the field of their expertise.
6. Student presentations.
7. Student quiz competition.
8. Award for best oral and poster presentation.
9. Exhibition of by industry, material and equipment manufacturers.

The Conference Scientific Committee is currently engrossed with the preconference activities; suggesting conference theme that integrates student research and inter-disciplinary research, setting criteria to screen the conference competition.

The organizing committee is working with the IT department to add the conference webpage to ISNC’s website detailing the conference activities, registration and conference reports. The conference organizing committee has also planned to invite exhibitors from the industry, manufacturers of health science products, material and drug manufacturers etc.

Reported By: Dr. Irfan Adil Majid, Director, ISNC-RC and PRT Head Dentistry Program.
STAFF PUBLICATIONS

Medicine Program


Clinical Pharmacy Program


Dentistry Program


A research project was designed by prof. Fathi El-Gamal chairman of Family medicine department and was approved by research center and ethics committee. This project was designed to study scope, pattern and clinical presentations of outpatient visits to primary care setting.

This project was a subject for research for the 5th MBBS students in the rotation of Family medicine. Both male and female students collected the data through enquiry about patients details, measuring vital signs, recording complaints, investigations and management of the patients as well as outcome of the visits. Data were collected on 3740 patients through the period 1/9/2016 to 1/1/2017.

The students were divided into groups, and each group conducted a research on a certain system disorder, or particular diseases. Six pieces of research were conducted and presented by the students namely:

1. Epidemiology of outpatient clinic visits due to cardiovascular disorders.
2. Epidemiology of outpatient clinic visits due to Respiratory system disorders.
3. Epidemiology of outpatient clinic visits due to Gastrointestinal disorders.
4. Epidemiology of outpatient clinic visits due to Endocrinial disorders.
5. Pattern, determinants and clinical presentations of asthma, bronchitis and pneumonia at primary care settings.
6. Pattern, determinants and clinical presentations of IBS, Gastritis and GERD.
These researches were discussed in a Journal Club meeting organized, and moderated by prof. Fathi E-Gamal chairman of family medicine department. Prof. El-Gamal demonstrated the burden and relative frequencies of the of total outpatient clinic visits, He revealed that the most frequent outpatient visits were for Respiratory disorders (38.6%), followed by GIT disorders (23%), and CVD (Table 1 and fig 1).

The different groups of students presented their researches as oral presentations, or posters or as reports. Students discussed the different topics under supervision of prof. El-Gamal.

<table>
<thead>
<tr>
<th>Cause of visit</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Respiratory system disorders</td>
<td>1442</td>
<td>38.6</td>
</tr>
<tr>
<td>Gastrointestinal disorders</td>
<td>867</td>
<td>23.2</td>
</tr>
<tr>
<td>Cardiovascular disorders</td>
<td>511</td>
<td>13.7</td>
</tr>
<tr>
<td>ENT</td>
<td>272</td>
<td>7.3</td>
</tr>
<tr>
<td>Endocrine disorders</td>
<td>247</td>
<td>6.6</td>
</tr>
<tr>
<td>Central nervous disorders</td>
<td>98</td>
<td>2.6</td>
</tr>
<tr>
<td>blood diseases</td>
<td>80</td>
<td>2.1</td>
</tr>
<tr>
<td>Genitourinary</td>
<td>65</td>
<td>1.7</td>
</tr>
<tr>
<td>Skin disorders</td>
<td>63</td>
<td>1.7</td>
</tr>
<tr>
<td>musculo-skeletal disorders</td>
<td>55</td>
<td>1.5</td>
</tr>
<tr>
<td>Fever</td>
<td>37</td>
<td>1.0</td>
</tr>
<tr>
<td>Eye disorders</td>
<td>3</td>
<td>0.1</td>
</tr>
<tr>
<td>Total</td>
<td>3740</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Table 1. Scope and trends of out-patients visits in primary health care setting

Fig. 1: Frequency of disorders seen at the primary care physicians

Reported by: Prof. Fathi El-gamal, PRT Head Medicine Program.
CONFERENCE PRESENTATIONS OF MEDICINE PROGRAM

A number of Medicine program staff members actively contributed oral and poster presentations at national conferences and symposia. The department of Obstetrics and Gynecology was active in this regard. Dr. Ahmed Al-Harbi the Vice Dean of Clinical training of Medicine program presented a paper entitled “Management of Infertility” in Acute and chronic Pediatric and gynecology Diseases Symposium.

Dr. Ahmed Al-Harbi sharing his research experience at the “Acute and Chronic Pediatric and Gynecology Disease Symposium”

Professor Mohmoud Yousef from department of Obstetrics and Gynecology presented a paper entitled “Dysmenorrhea among teenage Saudi Arabian females” at the 3rd Endometriosis Saudi Conference.

Mentoring undergraduate students in research and scholarship is encouraged and appreciated at ISNC. Staff members involved in research activities within the institution recruit student researchers in all research projects suitable to the student’s level of research learning and requirements. Currently a number of research projects are underway in the Medicine Program that have inclusion of student researchers in them. Findings of one such research project entitled “Correlation between antenatal place and frequency of fetal cardiotocography and serial ultrasound and fetal Outcome” was presented at ____ by Mr. Ahmed Reyad Elrify a 5th year Medicine Program student under the supervision of Ms. Khamarunnisa Nooh staff of Biostatistics department.

Reported By: Dr. Irfan Adil Majid, Director, ISNC-RC and PRT Head Dentistry Program
ONGOING RESEARCH AT MEDICINE PROGRAM

1. Awareness of postpartum psychological reactions
   Principal Investigator: Prof. Mahmoud Youssef Ali Ahmed Abdalla
   Student Researcher: Ghufran Abu Khasaba
   Project Summary: The association between the postpartum period and mood disturbances has been noted since the time of Hippocrates (Miller, 2002). During antenatal care there is no information for the pregnant woman about postpartum psychological reactions. This study is to explore the postpartum psychological reactions of 200 Saudi women to recognize their postpartum psychological reactions and how they react.

2. Quality of antenatal care in Makah region.
   Principal Investigator: Prof. Mahmoud Youssef Ali Ahmed Abdalla
   Student Researcher: Daniah Faraj
   Project Summary: Antenatal care (ANC) is one of the evidence based interventions to decrease the probability of bad health outcomes for mothers and their newborns. Every pregnancy carries a risk of complications and some pregnancies carry more risks than others. For normal pregnancies, WHO recommends only four antenatal visits with the first visit in the first trimester (ideally before 12 weeks but no longer than 16 weeks), at 24–28 weeks, 32 weeks and 36 weeks. Each visit should include care that is appropriate to the woman’s overall condition and stage of pregnancy and help her preparing for birth and care for the newborn. If problems or potential problems that will affect the pregnancy and newborn are detected the frequency and scopes of visits are increased. Therefore, the major goal of focused antenatal care (FANC) is to help women maintain normal pregnancies through identification of pre-existing health conditions, early detection of complications arising during pregnancy, health promotion and disease prevention and birth preparedness and complication readiness planning.

3. Student perception on the effectiveness of Problem Based Learning in MBBS curricula in Saudi Arabia.
   Principal Investigator: Dr. Shabbir Ahmed Sayeed
   Student Researcher: Rami Issam M. Arabi, Abdullah Ghazi H Al Judabi
   Project Summary: Problem Based Learning (PBL) in the past 50 years has gained universal acceptance as an effective learning-teaching tool in the medical schools across the globe. However, in recent years studies are surfacing with mixed and sometimes contradicting conclusions on the effectiveness of this method. Learner perception is of great importance in evaluating the impact of the tools employed as well as the assessment methodology used in evaluation. Reports with varied results on the student perception are available in the literature. This study aims at investigating effectiveness of PBL as perceived by the medical students in the Makkah province through a survey based approach. Since PBL is relatively new in this part of the world, this investigation is expected to yield valuable inputs to further resolve the role of PBL in medical curricula.

4. Foot Injuries and ulcers Among Hajj Pilgrims; a cross sectional study.
   Principal Investigator: Dr. Yasar Bakr
   Student Researcher: Raghad Mohammed awaji, Abdulrahman Mohammed al-radadi, Amal Abdulla Alamri, Aya wael Salman, Abdulsalam Omar Daghistani, Murad Asdullah Yasawy, Fadi maher zaemi
   Project Summary: Pilgrims attending Hajj in Makkah are at high risk of suffering from trauma and foot injury as they are required to make circuits barefooted on scorching marbles around the Holy Mosque, and March between two hillocks for hours. This study aimed to determine the spectrum of foot injuries among diabetic and non-diabetic Hajj pilgrims and the preventive measures adopted by them. Pilgrims who attended the Hajj before and those attending this year 2016 are invited to participate in the study and fill out a questionnaire.

5. Measurement of program learning outcomes (Medicine)
   Principal Investigator: Dr. Suban Mohammed Gouse.
   Co-investigators: Prof. Dr. Mathew Jeraud, Dr. Tasneem Mohammed, Dr. Tasneem Mohammed, Dr. Helen Gouse, Ms. Sara Jabeen, Dr. Sylvester Lazarus, Dr. Touseef Begum, Dr. Siva Vadivel.
   Project Summary: The assessment of program learning outcomes has been a topic of international interest as a means of quality assessment and ongoing program quality enhancement. Program learning outcomes are statements that describe what students will know, value or be able to accomplish after successfully completing their program. These outcomes are often achieved through specific learning activities, which are integrated at the course level and build toward overall program level learning. Program learning outcomes can be developed followed by a set of learning outcomes that are closely aligned with the mission and goals of the program. The assessment of program learning outcomes is an integral part of learning centered education. According to Biggs and Tang (2007), all aspects of teaching and learning in a course should be aligned to the appropriate program learning outcomes. They also suggest, when assessment is conducted, program learning outcomes become more strategic and effective. Measuring the program learning outcomes ensure that students learn most important skills, ideas, attitudes and values of the profession. It documents the evidence of students learning based on the actual outcomes they have achieved for accreditation purposes. Program learning outcome measurements allow improving the effectiveness of the program based on actual student achievement. It also makes the graduates appealing to employers and the program attractive to prospective students. Based on the courses / modules achievement table, achievement of program learning outcomes was calculated. Monitoring both quantitative and qualitative data may enable institutions to make decisions that lead to overall goal of improving teaching and learning. This can reinforce continued engagement for faculty, students, staff and administrators who work both individually and in teams to design and assess programs and enhance student learning.

6. Study of impact of Resit Examination on Progression
Rate in an integrated curriculum of Medicine Program
Principal Investigator: Dr. Suban Mohammed Gouse.
Co-investigators: Prof. Dr. Mathew Jeraud, Dr. Tasneem Mohammed, Dr. Dibya Panda.
Project Summary: The literature on resit examinations in universities is rather underdeveloped, with Ricketts (2010, 351) claiming that there is “no theory of resits” within the literature. The main findings of the literature are that students perform better in resit examinations than in the primary examination, and these may be put down to better preparedness, extra tuition, increased effort, and the ability to take the examination in isolation from other subjects (Pell, Bouriscott and Roberts (2009)). In this study, we would like to identify the effect of resits on future outcomes within Medicine Program. Resits serve the dual purpose of trying to ensure that students have reached the appropriate attainment threshold to pass into the next year of study, but also to try and incentivise low attaining students to put in additional work, with the aim of ‘hitting the ground running’ for the next academic year. These students would have been punished by repeating a year so by giving remediation, they have been spared of this punishment. We would also like to see the impact on the progression rate in an integrated curriculum of Medicine.

6. Effectiveness of Assessment Planning Tool: A tool for content validity
Principal Investigator: Dr. Suban Mohammed Gouse.
Co-investigators: Prof. Dr. Mathew Jeraud, Dr. Tasneem Mohammed, Dr. Helen Gouse, Ms. Sara Jabeen, Dr. Sylvester Lazarus, Dr. Touseef Begum, Dr. Siva Vadivel, Dr. Dibya Panda.
Project Summary: The assessment planning tool is a guide used in the production of assessment consistent with the content as identified by the subject expert of the course or module in a program. All the principles of assessment apply to the assessment planning tools. APT ensures that our graduates achieve the goals and outcomes expected in the program. Constructing fair tests that give accurate information about students learning is an important skill for teachers. Every classroom assessment measure must be appropriately reliable and valid. Keeping in view the multistage assessment and the types of assessment methods at ISNC TBP and TOS have been devised for various courses in the programs. TBP is a chart depicting the number and type of test items in the content area based on the Course / Module Learning Outcome CLO/MLO) which are aligned with the Program Learning Outcomes (PLO). It identifies the percentage weighing in each NQF domain and accommodates all the assessments of the multistage assessment model of ISNC. The purpose of TOS is to identify the five NQF domains (Knowledge, Cognitive, Interpersonal skills & responsibility, Communication Information Technology Numerical and, Psychomotor) being measured and to ensure that a fair and representative sample of items appear in the assessment. For sample study, theachievability table, test blue print and table of specification were procured for selected courses in the program. The courses were critically audited and analyzed for any deviation noticed in the TBP and the assessed item. The general findings observed are classified into three categories. a) Variation within the domain b) Variation within the domain c) Variation within the domain.

7. Study of formative use of summative assessment in clinical pharmacy program.
Principal Investigator: Dr. Dibya Pada
Co-investigators: Dr. Suban Mohammed Gouse., Prof. Dr. Mathew Jeraud, Dr. Tasneem Mohammed, Ms. Sara Jabeen.
Project Summary: This study will explore how summative assessment practices can be used in a formative way in the clinical pharmacy program to improve the achievement of learning outcomes. Summative assessment (assessment of learning) is the assessment that involves an evaluation of student achievement resulting in a grade. Both formative assessment (assessment for learning) and summative assessment have vital roles to play in the education of students, and although on the surface they may not seem to have much in common, there are identified ways they can work together to improve student learning. Making formative use of summative assessment means using information derived from summative assessment to improve future student performance. For the teacher it involves: Providing a range of assessment tasks and opportunities to make certain that a range of student learning styles are catered for. Teaching students to prepare more efficiently for summative assessment by making use of knowledge about themselves as learners. Making use of the results of summative assessment so that learning is emphasized. For the student it involves: Developing the ability to identify ‘where I am now’ and ‘where I need to be’... and to prepare for summative assessment accordingly Recognizing that summative assessment experiences are an opportunity for further learning and a chance to improve future achievement. 1 years

Principal Investigator: Ms. Soumya V P
Student researcher:
Project Summary: Diabetes is a serious, chronic disease that occurs either when the pancreas does not produce enough insulin (a hormone that regulates blood sugar, or glucose), or when the body cannot effectively use the insulin it produces, which leads over time to serious damage to the heart, blood vessels, eyes, kidneys, and nerves. Diabetes is an important public health problem, one of four priorities no communicable diseases (NCDs) targeted for action by world leaders. Both the number of cases and the prevalence of diabetes have been steadily increasing over the past few decades. In the past three decades the prevalence of type 2 diabetes has risen dramatically in countries of all income levels.(1) The global prevalence (age-standardized) of diabetes has nearly doubled since 1980, rising from 4.7% to 8.3% in the adult population. This reflects an increase in associated risk factors such as being overweight or obese. Over the past decade, diabetes prevalence has risen faster in low- and middle-income countries than in high-income countries.(2) According to data from the search for Diabetes in Youth study, the overall prevalence of type 2 diabetes among American youths aged 10-19 years rose by 35% between 2001 and 2009 (from 0.34 per 1000 to 0.46 per 1000). (3,4) Diabetes is a chronic illness affecting over 5 million individuals in Kingdom of Saudi Arabia according to the International Diabetes Federation. Saudi Arabia is one of the
top 10 countries of prevalence percentage of diabetes, in Saudi Arabia diabetes spread has been estimated at about 24 %.(5)

This study aimed to evaluate the awareness and the knowledge of diabetes in adolescent about the disease which, will be of a great help to reduce the risk of developing diabetes and its complications.


**Principal Investigator:** Prof. Fathi El-gamal.

**Student Researcher:** Students of 5th year Family Medicine Rotation.

**Project Summary:** Recent data indicate increasing rates of adult obesity and mortality from cardiovascular disease (CVD) in Kingdom of Saudi Arabia. No data, however, are available on prevalence of overweight and obesity in relation to CVD risk factors among young adults in KSA. Aim of the work: This study aims at exploring the association between obesity and other risk factors for coronary heart disease among young adult medical students. Methods: A cross-section study, using a multistage (stratified and systematic) random sampling method; sample size calculated to be 641 subjects. The expected number of participants is 800, to allow for stratification. The study will include medical students from all 4 programs at IISNC, Jeddah, KSA. Questionnaire, anthropometric measures and blood chemistries will be obtained. The relationships between obesity indices (body mass index [BMI], waist circumference [WC], waist-to-hip ratio [WHpR], waist-to-height ratio [WHtR]) and CVD risk factor variables (blood pressure glucose, serum lipoproteins) will be investigated.

10. Basic life support knowledge of healthcare professionals in general hospitals In Makkah region.

**Principal Investigator:** Prof. Fathi El-gamal.

**Student Researcher:** Students of 5th year Family Medicine Rotation.

**Project Summary:** Basic life support (BLS) includes recognition of signs of sudden cardiac arrest, heart attack, stroke, and foreign body airway obstruction, and the performance of cardiopulmonary resuscitation (CPR) and defibrillation with an automated external defibrillator. (1) The majority of patients who experience an out-of-hospital cardiac arrest do not receive adequate resuscitation by health care professionals within the critical time, 3–5 min after onset, thus reducing the chance of survival. (2) Knowledge of BLS and practice of simple CPR techniques increase the chances of survival of the patient until experienced medical help arrives and, in most cases, is sufficient for survival in itself. (3) It is important that those who may be present at the scene of a cardiac arrest, particularly lay bystanders, have knowledge of appropriate resuscitation skills and the ability to put these into practice. (4) Therefore, it is crucial that everyone in the medical field has knowledge of BLS little is known about the knowledge and attitudes in healthcare providers in general hospitals in Makkah Region, KSA. So, we will conduct this study among healthcare providers in 2 general hospitals to evaluate their knowledge of BLS.

*Reported By: Dr. Irfan Adil Majid, Director, ISNC-RC and PRT Head Dentistry Program.*
EPCLUSA (Sofosbuvir; Velpatasvir): Newly Approved Antiviral Fixed Dose Combination.

Epclusa is an oral fixed-dose combination of sofosbuvir, a nucleotide analog NS5B polymerase inhibitor and velpatasvir, an NS5A replication complex inhibitor. Sofosbuvir is currently approved in the United States for the treatment of genotype 1, 2, 3,4,5,6 HCV infection with different regimens and durations dependent on the HCV genotype. Velpatasvir (formerly GS-5816) is a novel NS5A inhibitor that has potent in vitro anti-HCV activity across all genotypes at the picomolar level. The combination of sofosbuvir-velpatasvir is the first once daily single-tablet regimen with pangenotypic activity. Epclusa contains 400 mg of sofosbuvir and 100 mg of velpatasvir and usually used as once daily tablet.

By: Khalid Al-Olimi, Pharm. D 6th year, Ibn Sina National College for Medical Studies.

PRT CLINICAL PHARMACY PROGRAM

The clinical Pharmacy Program Staff members have been contributing to the research in their field and have presented their research findings in international conferences.

Dr. Iizhar presenting the research findings in International Congress on Recent Advances in Chemistry And Chemical Engineering -16, 11th-13th July-2016, JNTUH, Hyderabad, India

Clinical Pharmacy Program Staff members presented papers in the conferences

An Activity by L3- Pharm D. Female Students

An event entitled Drug Misuse was organized and held on Sunday 25th of December 2016, by level-3, Pharm D. students supervised by Prof. Ekhlass Nassar and Ms. Mariam El-Banawy, where two presentations were submitted:
1- Prescription Drug Abuse and Your Teens
2- Drug Misuse

Dr. Iizhar giving oral presentation in National Conference at JNTUH, Hyderabad, India
ONGOING RESEARCH ACTIVITIES BY LEVEL 10 STUDENTS OF, CLINICAL PHARMACY PROGRAM.

Program of clinical pharmacy continuous to tutor its students in research and scholarly activities. First semester of academic year 2016-17 witnessed a wide range of course embedded research activity form the level 10 students, following is the summary of the research projects undertaken by the students:

1. Insulin pumps Vs Conventional therapy:
   Supervisor: Dr. Akondi B. Raju
   Student Researchers: Walaa Mousa Alasiri, Hadeel Faisal Alharbi
   Project Summary: Evaluating the glycemic control, HB A1C and overall satisfaction in type diabetic patients using insulin pump therapy and comparing these parameters with patients using conventional insulin therapy in Saudi Arabia.

2. Prescription pattern of drugs in pregnant women:
   Supervisor: Dr. Tasneem Mohammed
   Student Researchers: Foza Eid, Raqda Hamad
   Project Summary: Very often pregnant women receives number of drugs which includes iron, folic acid, vitamin and mineral preparations, protein supplements, antibiotics etc. The purpose of this study is to investigate the prescription pattern of drug during pregnancy in Saudi Arabia.

3. Cost effectiveness survey of insulin pump therapy Vs conventional insulin therapy
   Supervisor: Dr. Akondi B. Raju
   Student Researchers: Rawan Bashir Alsoutari
   Project Summary: Economics play an important role in allowing more patients to follow the treatment strictly i.e Patient compliance. Insulin pumps appear more costly, yet effective. In this project, we are evaluating cost effectiveness of insulin therapy in patients using pumps vs conventional multiple injection therapy in Saudi Arabia.

4. Pattern of prescription of drugs in geriatric population
   Supervisor: Dr. Akondi B. Raju
   Student Researchers: Sawsan Hawsawi, Smaher Hussain
   Project Summary: Usage of Irrational combinations and scheduled drugs are more often reported in literature and in this study we are evaluating prescription pattern of drugs among more vulnerable geriatric population.

5. Role and responsibilities of Pharmacists in Saudi Arabia:
   Supervisor: Dr. Akondi B. Raju
   Student Researchers: Lara Mohammed, Ghina Bassam, Hadeel Alharbi, Reem Al zahrani
   Project Summary: Primary literature survey suggests that the community are either not aware/recognize the roles and responsibilities of Pharmacists in most of the countries. Most of the Pharmacists confined to either dispensing or promoting cosmetics and general products. We believe Pharmacist play a crucial role in health care system and utilization of his services helps to avoid interactions, toxicities etc. The purpose of this study is to know the awareness of the people and health care professionals about Pharmacists roles and responsibilities. Researchers are also evaluating the awareness among doctors and other health care professionals about the role of clinical pharmacist in preventing adverse drug reactions.

6. Clinical Pharmacy as a career, job satisfaction among community in Jeddah.
   Supervisor: Dr. Akondi B. Raju
   Student Researchers: Fatima Al Mahmadi
   Being an important part of health care team, the Pharmacist play a crucial role, however, we found no specific studies conducted in order to assess their job satisfaction, day to day problems, financial and other benefits. The purpose of this study is to know in of these parameters.

7. Complications of dermal fillers:
   Supervisor: Prof. Mohammad Moselhy
   Student Researchers: Raghad Al Abidi, Randa Al Shumran.
   Project Summary: Usage of dermal fillers is very high in western world and very famous among Middle Eastern youth. Both the genders use them widely due to mushrooming of beauty clinics. Being chemicals and foreign to human body, they tend to pose severe side effects and most of the times the users are either unaware of them. The purpose of this study is to know the awareness of the people and health care professionals about the complications of dermal fillers in Jeddah.

8. Medication waste management in Jeddah:
   Supervisor: Prof. Mohammad Moselhy
   Student Researchers: Asil Mussad, Lujain Adnan, Manal Abdulrahman.
   Project Summary: Sources of medication waste are hospitals, Pharmacy stores and patients. The hospital or pharmacy waste is generally taken by professional companies, but left over medication from patients goes in to dustbin reaches the dump yard, where it can cause enormous damage. The purpose of this study is to know the awareness of the people and health care professionals about the proper medication waste management. Also we will review current guidelines in medication waste management in Saudi Arabia.

9. Hormonal Therapy protocols in breast cancer patients:
   Supervisor: Dr. Amal Bahafi and Dr. Areej
   Student Researchers: Yasmeen Mohammed Sukkar, Wedad Hussam Jaber, Nagla Al Sini
   Project Summary: The purpose of this study is to investigate the association between individual variations in the metabolism with tamoxifen effect in breast cancer patients based on drug-drug
Interactions. Our primary working hypothesis is to confirm the association between CYP2D6 phenotype and treatment outcomes of tamoxifen in breast cancer patients based on the interaction between tamoxifen and enzyme inhibitors.

10. Awareness about sports, physical activity:

Supervisor: Dr. Akondi B. Raju
Student Researchers: Ahmed Aljedani, Ahmed Alhaj, Kareem Hegazi, Mishal Alharbi
Project Summary: The study aims to know awareness about the sports and among health care professionals, students and community at large in Jeddah. Increased physical activity can reduce the dependency on drugs among patients and community. The results of this study are going to help the policy makers on health care and give them proper direction.

11. Awareness about Diabetic complications among nurses in Jeddah:

Supervisor: Dr. Akondi B. Raju
Student Researchers: Ahmed Al Rasheed, Jawed Al Rasheed
Project Summary: Diabetic complications are devastating and proper education and care can prevent or delay their occurrence. Nurses play an important role in providing patient education. The purpose of this study is to know the awareness of the nurses on diabetic complications, their current role and difficulties they face etc.

12. Nutritional and vitamin deficiencies and prevalence of their related diseases:

Supervisor: Dr. Rasheed Ahmed
Student Researchers: Fayaz Aldali, Rayan Alharbi, Mohammed Alborei, Radwan Noor
Project Summary: School going children and young adults are reported with nutritional deficiencies in developed countries probably due to wrong food habits and lack of awareness of proper nutrition. In the Kingdom of Saudi Arabia, despite having economic affluence and adequate sunshine all year round, Vitamin D deficiency is fairly common in infants, children, adolescents, as well as pregnant and lactating mother. In the current study we are evaluating the awareness of the people on vitamin deficiencies and prevalence of their related diseases.

13. Prevalence of schizophrenia and effectiveness of paliperidone:

Supervisor: Dr. Khurshid Iqbal Molvi
Student Researchers: Ahmed Albogami, Ahmed Almohammadi, Ali Almozayen, Riyad Alahmadi
Prevalence of schizophrenia is increasing and lack of data on this can be problematic to frame necessary steps to reduce the occurrence. Paliperidone (9-hydroxyrisperidone) is drug it’s the major active metabolite of risperidone, which has been introduced as a novel atypical antipsychotic agent in many countries. It is available both as an oral extended-release (ER) formulation and as a long-acting injection (paliperidone palmitate, PP), which have been approved for treating schizophrenia in Saudi Arabia. This systematic review allows us to check the prevalence as well as the efficacy, effectiveness, and safety of paliperidone in the treatment of schizophrenia in Saudi Arabia.

14. Obesity, mental Health and vitamin D deficiency:

Supervisor: Dr. Ammar Faqha
Student Researchers: Ammar Basfar, Ahmed Al zahrani, kareem Sadeya, Mohammed Eissa, Mohammed Bantan.
Project Summary: Obesity, mental health and vitamin deficiencies are interrelated and this study aims to check awareness among public and students about this fact. Many researchers found that Vitamin D deficiency is highly prevalent here and there is a clear necessity to promote its usage in order to overcome difficulties.

15. Adherence of medication:

Supervisor: Dr. Mohammad Moselhy.
Student Researchers: Khalid Alfarbi, Adel Almalki, Abdullah Alassadi, Abdullah Alotaibi
Project Summary: Medication adherence is very vital for the successful treatment, however many studies reported non adherence of medication and this systematic review helps to understand current situation in Saudi Arabian population and steps taken by health care industry to improve medication adherence.

Reported By: Dr. Akondi B. Raju, PRT Head of Clinical Pharmacy Program
PRT DENTISTRY PROGRAM

The PRT of dentistry program continued its support and contribution to the research leaning and teaching of the interns in the form of journal clubs, organised case discussions and number of lectures and presentations by speakers both internal and external to ISNC. The table shows the activities organised for the benefit of the interns and teaching various aspects of research.

Table

The PRT’s involvement in tutoring the interns in the nuances of critical appraisal continued with Dr. Fazeena Ali, staff members of division of Dental Public Health demonstrating a “mock journal club” to introducing the interns to the various intricate details involved in critising the published litrature, conducting and hosting the Journal clubs. The current year the journal clubs witnessed a number of new intiatives to enrich the student learning and raise the level of student entusiasm;

were part of initiated last year as a part of scholarly activity for the interns. This year the journal club was welcomed with great zeal by the interns. The minor flaws which surfaced previously were resolved this year. The whole Journal club package is made attractive to the interns so that they participate with great involvement and enthusiasm. Weekly best presenter is awarded with the certificate which has encouraged the students with greater involvement in participation. On the other hand to encourage staff participation all the staff chairing the secessions is awarded with the certificate.
ONGOING RESEARCH AT DENTISTRY PROGRAM.

1. Awareness of Forensic Odontology among General Dental Practitioners in KSA-A Cross-sectional Study web based survey study

Principal Investigator: Dr. Sabarinath Prasad.
Student Researcher: Miss.Fai, Miss. Sulafa, Miss reham
Project Summary: The question always arises as to whether the dental practitioners should know about forensic odontology, the reason being that dental identification provides an accurate source of identification of the victim or the suspect. In recent times, natural and man-made disasters are occurring more frequently. Under these conditions, the bodies of the victims become mutilated beyond recognition, where the vital role of dental surgeons comes into picture in the identification of such individuals. Keeping this as the background, this study will be undertaken to analyze and assess the awareness about forensic odontology among the dental practitioners in KSA.


Principal Investigator: Dr. Fazeena Ali
Student Researchers: Amira, Rehman Subeih, Reham Sabana, Sara Ezaldin, Aram
Project Summary: Obesity is the abnormal and unwarranted amount of fat collection in the body which is a risk factor for many diseases; according to WHO, obesity is a "global epidemic" (WHO, 2000). The prevalence of obesity is increasing in both adults and children (WHO, 2014). In the last two decades, there has been an increase in obesity among Saudi adults, 28% and 44% men and women respectively (ALNohair, 2014), and prevalence in children was approximately 12 (El Mouzan et al., 2010). Dental trauma is one of the most oral related problems among children; it is a major concern for both parents and dentists because of its short term (pain, irreversible pulpitis etc) as well as a long term (tooth loss) consequences, which affect the quality of life (Dame-Teixeira et al., 2013). According to prior studies, the prevalence of dental trauma in children is high from 10%-35% (Petti et al., 1997). A study conducted in Saudi Arabia by Al-Majed (2001) found the prevalence of dental trauma in 5-6 year-old boys as 33% and 12-14-year-old boys as 34%. Although the prevalence of dental trauma and the risk factors have been studied widely (Bendo et al., 2010 and Glendor, 2009), but there is no definitive consensus on this and the association between obesity and traumatic dental injuries is still debatable. Only one cross-sectional study showed obesity to be a risk factor dental trauma in schoolchildren ((Petti et al., 1997) and another in preschool children (Granville-Garcia et al., 2010). A recent 3-year prospective study from India showed that obese adolescents are having higher chances of developing dental trauma (Basha et al., 2014). Other studies reported no significant association between obesity and dental trauma in schoolchildren (Al-Bajjali and Rajab, 2014, Soriano et al., 2009). Due to the high prevalence of dental trauma and obesity and consequence of these on the quality of life, these have been considered as public health issues and there is a gap in literature about the association of obesity and dental trauma in Saudi Arabian schoolchildren; therefore, further exploration on these factors are essential which will be useful to develop more preventive measures.

3. An experimental investigation into the utility of proprietary software generated interactive lessons in dental students performance of tasks in the psychomotor domain

Principal Investigator: Dr. Sabarinath Prasad.
Student researcher: Mr. Mustafa Meghlaj, Mr. Hussam, Mr. Mann
Project Summary: Introduction of newer teaching modalities beyond lectures is a suggestion from the MOHE. Helping students achieve CLO and thereby PLO is priority. Assessment of e-learning awareness is an immediate priority, prior to embarking on the use of technology to assist in teaching. This project will help us assess e learning readiness awareness as well as study the effect of proprietary software generated interactive lessons in dental student’s performance of tasks in the psychomotor domain.


Principal Investigator: Dr. Irfan Adil Majid
Student researchers: Ahmad Mozayen, Abdulaziz Arogi, Rida Subhi, Reham Sabana, Sara Ezaldin, Aram
Project Summary: Lip prints or cheiloscopy is study of creases on the vermilion border of the lips. Lip prints are unique and do not change during the life of a person. It has been proved that the lip creases recover after undergoing alterations during trauma, inflammation and even diseases that affect the vermilion border of lip like herpes and that the characteristics and form of the furrows does not vary with environmental factors. The lip prints of parents and children
and those of siblings have shown dissimilarities as well. It has also been suggested that variations in patterns among males and females could help in sex determination. Therefore cheiloscopy is similar to fingerprints and are unique and can be used for identity fixation. In the recent past lip-print studies (cheiloscopy) has attracted the attention of many researchers as a new tool for human identification in both civil and criminal disputes. Although a number of studies have been performed elsewhere, to our knowledge only one study has been reported in the electronic database from Almadinah Almonawarah province, therefore this study is proposed to be carried out to bridge this knowledge gap.

5. Comparative Evaluation Of The Mesiodistal Width And Shade Of Six Maxillary Anterior Teeth In A selected Saudi Population

Principal Investigator: Eman Muhammed Farhan
Student Researcher:
Project Summary: The size, form and color of the teeth must be in harmony with the oral and facial structures. The aim of this study will be measure mesiodistal width and shade of six anterior natural teeth of maxilla in a selected saudi population to act as a guide in restoration of anterior teeth in dentulous and edentulous patients. These readings will take from 200 males and 200 females. The mean mesio-distal width and difference of each tooth on both side, combined mean mesio-distal width and difference of both side, most common shade of each tooth and difference of shade on both sides will estimate.

6. Study of the most frequent natural tooth colors in a selected Saudi population using spectrophotometry.

Principal Investigator: Eman Muhammed Farhan
Student Researcher:
Project Summary: Purpose. To identify the most frequent natural tooth colors using the Easyshade Compact (Vita - Zahnfabrik) spectrophotometer on a selected Saudi population according to 3 commonly used shade guides Materials and Methods. The middle third of the facial surface of natural maxillary central incisors was measured with an Easyshade Compact spectrophotometer (Vita Zahnfabrik) in 400 Saudi participants aged between 16 and 89 years. Natural tooth color was recorded using the 3D Master System nomenclature.

7. Golden proportion assessment between maxillary and mandibular teeth In a Selected Saudi population.

Principal Investigator: Eman Muhammed Farhan
Student Researcher:
Project Summary: Purpose. This study will evaluate the existence of golden proportion between the widths of the maxillary and mandibular anterior teeth in a selected Saudi population. Materials and Methods. recorded with the digital Vernier calipers on 400 patients of both sexes in the age group of 21 - 30 years. Flexible ruler will use to determine the width of maxillary and mandibular anterior teeth on the patients by the same operator. The data obtained will statistically analyzed using paired student t-test (α=.05).

8. Practice of Occlusal Contact Reduction during Endodontic Treatment among Dental Practitioners in Jeddah, Makkah, and Taif region

Principal Investigator: Dr. Suhail Shariff.
Student Researcher: Ahmad Ali Baz
Project Summary: Occlusal reduction has been proposed as a technique to reduce the pressure that is exerted on the periapical area of the tooth which will help by reducing the pain that will be generated by occlusal force. Another cause that could lead to the development of post-operative pain is the amount of extruded apical debris. From our observation, occlusal reduction is not routinely done in endodontic treatment by dentists. Moreover, there is a lack of studies regarding the prevalence of the application of the aforementioned intervention. Therefore, our aim from this study is to gain an insight into the number of dental practitioners who are utilizing this technique in Jeddah, Mecca, and Taif.

9. Success rates of pulpotomies in primary teeth using ferric sulphate, MTA and biodentin

Principal Investigator: Dr. Amit Vanka
Student Researcher: Ahmad Ali Baz
Project Summary: Traditionally formocresol has been the most commonly used medicament for pulpotomy in the primary dentition. But recent studies have indicated a carcinogenic and mutagenic potential with it’s use. Ferric sulphate has evidence of comparable results with pulpotomy Newer materials such as
MTA and biodentin are to be evaluated compared to ferric sulphate.

10. Barriers of restorative care among the patients attending dental hospital for treatment

**Principal Investigator:** Dr. Shanti Vanka.

**Student Researcher:**

**Project Summary:** The epidemiological data in Saudi Arabia indicated that there have been negligible rates of restorative care among the population. Jeddah is a city in Saudi Arabia from which patients attending dental colleges will be taken using a simple random sampling method. Randomization was done to get a sample that was representative of the patients attending the private dental college of Jeddah city. There are no published reports that systematically document the barriers of restorative care among the residents of Saudi Arabia. Since dental patients are expected to seek oral care they are the best people to express opinions about barriers that confront them during the process of seeking oral care. (Kikwilu et al) To promote oral health by increasing the level of restorative care this study was conducted aimed to identify the barriers of restorative care as perceived by patients attending the dental college.

II. Oral health status and treatment needs among factory employees in Jeddah.

**Principal Investigator:** Dr. Irfan Adil Majid.

**Student Researcher:** Thamer Alharbi, Ahmad Moghlaj, Adulaziz Alrogi, Abdullah Alhashmi.

**Project Summary:** Oral health is vital to general wellbeing and oral diseases are one of the most common of non-communicable diseases affecting mankind. It is an important public health problem owing to its prevalence, socio-economic aspect, treatment cost and lack of awareness (Petersen, P.E., 1983). Though oral and dental diseases are rarely life-threatening, they do have an impact on the quality-of-life (Bansal, M. and Veeresha, K.L., 2013), and oral health problems have been widely recognized as important cause of negative impact to workers in their daily activities and quality of life (Macedo et.al, 2011). Although, the dental literature shows that a majority of studies regarding factory employees have been conducted abroad, only very few studies have been conducted in Asia ((Bansal, M. and Veeresha, K.L., 2013). A study conducted in Jeddah by Al-Attas et. al, (2014) which included factory workers in their study sample reported that a high prevalence of (88.8%) of soft tissue lesions was found among the tobacco users examined, and a wide range of other lesions were detected. However, interest in the oral health of workers has increased due to need of knowing the oral health profile of this population group as little information is available in the dental literature (Macedo et.al, 2011). Since this information is relevant for the development of oral health strategies that meet the specific needs of this population, benefiting their well-being and general health, this study aims to assess the oral health status and treatment needs and to assess the oral-health related quality of life among workers from industrial town in Jeddah.

12. Pattern of antibiotics prescription during oral implantology among dentists in Saudi Arabia

**Principal Investigator:** Dr. Khalid Eid.

**Student Researcher:** Ahmed al mozyain

**Project Summary:** There would be wide variation in current use of antibiotics in oral implantology. OBJECTIVES: To investigate antibiotic prophylaxis prescription behaviors among dentists working with dental implant surgery in Saudi Arabia ( western area). Methods: a specially designed questionnaire was prepared and will be uploaded on the internet and dentists practicing oral implants will be contacted to fill the questionnaire. Results will be analyzed and conclusion about current pattern of antibiotic prescription will be disused.

*Reported By: Dr. Irfan Adil Majid, Director, ISNC-RC and PRT Head Dentistry Program.*
Call for Editorial Board Membership

Being an active member of an editorial board of a journal or newsletters is considered a Scholarly Activity. At ISNC and ISNC-RC, we support this belief by creating such opportunities to both staff and students of the institutions. The editorial board of the research newsletter invites applications to the research newsletter editorial board membership, please do send us your applications to researchnews@ibnsina.edu.sa.

Errata

Page 4 of Volume 1, Issue 2: Pharm. D. Program Publications, the following corrections to be noted.


Upcoming

Research Guidelines: We shall shortly publish the revised ISNC-RC’s research guidelines on the college website

Good Practice in Research series.
## ISNC-RC Activity Calander

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CRPS=Call for Research Proposal Submission  
RCM= Research Committee Meeting  
PNI= Publish Research Newsletter  
SDRP= Submission Deadline of Research Proposals  
MSIV= Mid Semester 1 Vacation  
MS2V= Mid Semester 2 Vacation  
MYV= Mid Year Vacation  
ISNC-ASC= ISNC-Annual Scientific Conference  
AV=Annual Vacation  
FDP= Faculty Development Program  
JC= Journal Club  
OCD= Organized Case Discussions